

Senior Mechanical Engineer, Caltrans (Supervisor)

California State Personnel Board Specification

- **Schematic Code:** GM25
- **Class Code:** 3001
- **Established:** 02/01/1984
- **Revised:** 01/09/2007
- **Title Changed:** 01/31/1989

Definition

Under direction, to supervise mechanical engineering work involved in the design, construction, and maintenance of storm drainage pumping plants, sewage lift stations, vehicular tunnels, movable bridges, roadside rests, highway maintenance stations, toll plazas, truck weigh and inspection stations, and other transportation-related facilities; and to do other related work.

Typical Tasks

Plans, organizes, assigns, and checks work; gives instruction and assistance, evaluates performance, and makes technical decisions in connection with the supervision of the work of a group of mechanical engineers engaged in the design and preparation of plans, specifications, and estimates for transportation-related facilities, including drainage pumping plants, sewage lift stations, vehicular tunnel ventilation systems, movable bridge machinery, roadside rests, highway maintenance stations, solar heating systems, heating, ventilating, and air conditioning and refrigeration and plumbing; writes technical specifications; reviews and supervises the checking of plans, designs, and quantities; supervises and performs field tests for final acceptance of mechanical equipment; supervises construction and maintenance inspections; reviews reports covering installation, repair, and recommended improvements to highway mechanical systems; coordinates the work of engineers and contractors; confers with the manufacturers' agents and contractors regarding acceptability of equipment; dictates correspondence; and prepares reports.

Minimum Qualifications

Possession of a valid certificate of registration as a Mechanical Engineer issued by the California Board for Professional Engineers and Land Surveyors. (Candidates who submit proof that they have applied for registration will be admitted to the examination, but must possess a valid certificate of registration to be appointed.) and

Either I

Experience: One year of experience performing the duties of an Associate Mechanical Engineer, Caltrans, or Mechanical Engineer, Range D, in the California state service.

Or II

Experience: Five years of professional mechanical engineering experience, at least two years of which shall have been in design, construction, and maintenance work in several of the following fields: drainage pumping plants, sewage lift stations, vehicular tunnel ventilation systems, movable bridge machinery, roadside rests, highway maintenance stations, solar heating systems, and heating, ventilating, and air conditioning. (The two years of specialized experience must be comparable in level of responsibility to that of an Associate Mechanical Engineer, Caltrans, or Mechanical Engineer, Range D, in the California state service.)

Knowledge and Abilities

Knowledge of: Designing and supervising the preparation of plans, specifications, and estimates for the mechanical systems of transportation-related facilities; mechanical theory and practice; mechanical equipment; various codes, safety orders, and regulations governing the design and installation of mechanical equipment; materials and maintenance of mechanical installations; principles of effective supervision; a manager's/supervisor's responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment that is free of discrimination and harassment; and planning and supervising the work of others.

Ability to: Supervise the preparation of plans, specifications, and estimates for the mechanical systems of transportation-related facilities; plan and supervise the work of others; direct or make construction and maintenance inspections; check drawings and specifications; establish and maintain cooperative relations with those contacted in the work; analyze situations and adopt an effective course of action; prepare correspondence and reports; and promote equal opportunity in employment and promotion, and maintain a work environment that is free of discrimination and harassment.